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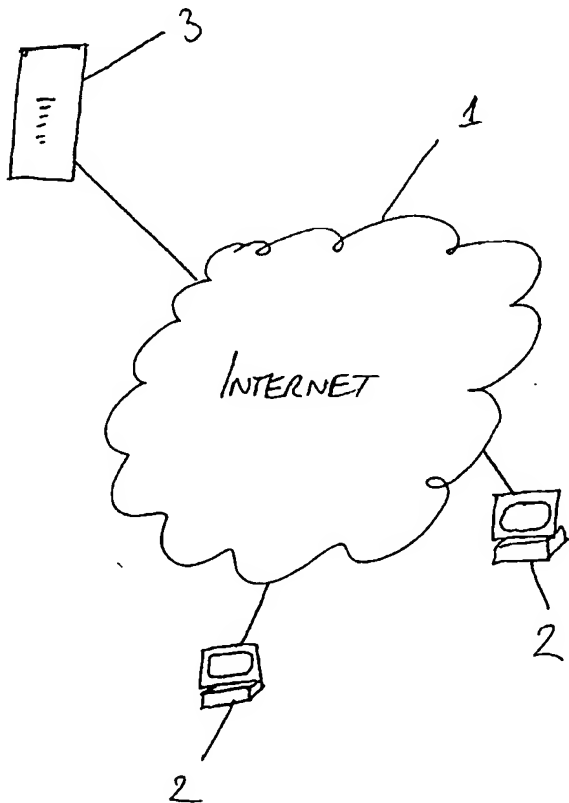
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(54) Title: ELECTRONIC MAIL ADVERTISING SYSTEM



(57) Abstract: The present invention relates to the delivery of push-content via electronic mail. Advertising is presently delivered in a very simple fashion by electronic mail. Either by a text e-mail itself, by a link to an Internet site or by a file attachment to the e-mail. These all have disadvantages. In the present invention, the tag with an electronic mail calls up a sequence of steps which causes a pop-up window including push-content to appear after a predetermined time period.

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## ELECTRONIC MAIL ADVERTISING SYSTEM

FIELD OF INVENTION

5           The present invention relates to a system and method for delivery of content utilising electronic mail and has application to advertising as well as other forms of content delivery.

10   BACKGROUND OF INVENTION

          Communication between users of computing systems utilising electronic mail is now ubiquitous. Many communications which would have previously been handled by  
15   telephone or facsimile are now done instead by electronic mail. Electronic mail has an advantage over conventional communications in that files, links, and other matter can be transmitted with the electronic mail.

          Like any other method of communications, it is  
20   desirable in the commercial world to be able to deliver commercial content, such as advertising, to an end user. Electronic mail advertising is presently carried out in a fairly simple and straight forward manner. Electronic mail can be sent in the form of "junk" mail including  
25   unsolicited content, can be sent via mail lists or can be targeted to particular end users. The mail itself can contain the advert in text form, or the mail may contain a link to an Internet page, or may have an attachment which the user can open to reveal the advert.

30           All these ways of content delivery by electronic mail have problems. If the content delivery is by straight forward text within the e-mail, the user may open the e-mail, see that it is an advertisement or other content that they are not really interested in and immediately  
35   delete the electronic mail. If the electronic mail contains a link, they need not "click" on the link to go to the advert, and if the electronic mail contains a file

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that they need to open, they need not open the file.

Further, if an electronic mail attachment is to be sent to a number of people, it will considerably add to the e-mail server load. Further, an attachment may be  
5 blocked if it is too large, or in some corporate environments all attachments are blocked.

Current delivery of advertising by way of electronic mail is therefore unsatisfactory.

In an earlier patent application by the present  
10 applicants (International Patent Application No. PCT/AU99/00350), the disclosure of which is incorporated herein by reference, a method and system of providing push-content to Web pages on the Internet has been proposed. This earlier application does not disclose any  
15 way of using electronic mail to provide push-content.

#### SUMMARY OF THE INVENTION

In accordance with a first aspect of the present  
20 invention, there is provided a method of providing push-content to a user via electronic mail, comprising the step of (a) automatically displaying a pop-up window displaying the push-content material, the pop-up window being provided a predetermined time after a user has begun  
25 viewing on electronic mail.

Note that the predetermined time may be very short, so that the pop-up window appears immediately after the electronic mail has been opened, or may be longer than this.

30 The push-content can be separately loaded over a network whilst the user can be viewing the electronic mail. Preferably, the pop-up window disappears after a second predetermined interval. The method can further include the step of iterating step (a) after a third  
35 predetermined interval.

The pop-up window preferably runs independently of the electronic mail. If the electronic mail is closed,

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for example, the pop-up window will run separately and will need to be closed itself to remove it.

Preferably, the pop-up window is displayed a predetermined time after the electronic mail has been  
5 opened. The opening of the electronic mail is preferably a trigger for a sequence of events to occur which cause the pop-up window with the push-content to appear after the predetermined time period.

Preferably, the window is loaded with content in the  
10 background and is then brought to the front for further use as needed.

The electronic mail preferably includes a control element, which, on opening of the electronic mail, triggers the events leading to the display of the pop-up  
15 window displaying the push-content material.

Preferably, each time the electronic mail is opened, the pop-up window and push-content is displayed. Different push-content material may be displayed on each opening of the electronic mail. For example, a sequence  
20 of adverts may be played on each opening of the electronic mail.

In another refinement, pop-up windows may sequentially be played with different push-content at predetermined time intervals between each other, as the  
25 electronic mail remains open. The step of the pop-up window disappearing may be carried out by the pop-up window being closed or is merely re-positioned at the back of other windows.

In a preferred embodiment, the electronic mail  
30 includes a control element in the form of a tag which includes a URL and causes the browser on the user's computer to call up the addressed server. A "play list" is downloaded from the server which causes the browser to open a window (which may be opened behind other windows)  
35 and build push-content in the window. The window is then moved to the front (if it was behind other windows) to display the push-content. After a further interval the

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window is closed or re-positioned at the back of other windows.

The method of the present invention has the advantage that, in the preferred embodiment, whether or not an  
5 electronic mail is closed, the push-content will still be played after the predetermined time interval. In order for the user not to view the push-content he will have to close it. Because, in the preferred embodiment, the push-content is loaded behind user's windows and is not pushed  
10 to the front until the content is complete, then the user is going to view the content anyway.

Further, because in the preferred embodiment the opening of the electronic mail triggers a further sequence of events which involves fetching the push-content  
15 material from another location (e.g. a push-content server) the electronic mail can be small in size and the push-content can be large in size. Large electronic mails do not have to be downloaded, therefore.

Preferably, the method also includes the step of  
20 recording whether the pop-up window was closed by the user prior to completion of the second predetermined interval. This recorded information can be used to determine whether users have taken an interest in the push-content.

The push-content may be varied in accordance with  
25 parameters available to the programming or scripting language used in a particular implementation of the method. The push-content can also be varied in accordance with a detected IP address of the user.

In accordance with a second aspect of the present  
30 invention, there is provided a system for providing push-content to a user via electronic mail, the system including a server computing system arranged to detect opening of an electronic mail and in response thereto to provide push-content material to a user computer to be  
35 displayed within a pop-up window arranged to appear a predetermined time after the user has begun viewing the electronic mail.

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Preferably, the electronic mail includes a control element, such as a tag, which, on opening of the electronic mail (or a predetermined time after opening of the electronic mail) causes the server computer to provide  
5 the content.

The server computer may provide means for carrying out any or all of the method steps discussed above.

From a third aspect, the present invention provides an electronic mail which includes a control element which  
10 is arranged to trigger the steps of the method discussed in relation to the first aspect of the present invention. The electronic mail may trigger any or all of the steps of the method discussed above.

In a fourth aspect, the present invention provides a  
15 method of providing push-content to a user computer comprising the steps of transmitting an electronic mail of the third aspect of the invention above to a user computer.

## 20 BRIEF DESCRIPTION OF THE DRAWINGS

Features and advantages of the present invention will become apparent from the following description of embodiment thereof, by way of example only, with reference  
25 to the accompanying drawings, in which;  
Figure 1 is a diagram illustrating a system in accordance with an embodiment of the present invention, and,  
Figure 2 is a basic flow diagram illustrating steps in the operation of a preferred embodiment of the present  
30 invention.

## DESCRIPTION OF PREFERRED EMBODIMENTS

Referring to figure 1, a system in accordance with an  
35 embodiment of the present invention is illustrated, being in this embodiment in the form of an Internet server computer 3 connectable to the Internet 1. User computers

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(PC's in this case, but may be any type of computing system) 2 are also connectable to the Internet 1.

In accordance with an embodiment of the present invention, electronic mails are received by the user  
5 computers 2. On opening of the electronic mails, a pop-up window including push-content is arranged to appear on the computer 2 terminals. The push-content, in this embodiment, is provided by the server computer system 3.

In more detail, the electronic mail includes a  
10 control element in the form of a tag which is arranged to call up the user's browser and which includes the URL for connecting to the server 3. A play list is downloaded from the server 3 which includes directions to open a window and obtain content from the server 3, e.g. via a  
15 URL (note the content may be obtained from other servers as well from the server 3, by virtue of connecting to other servers). After a predetermined time the pop-up window is removed from the user's screen.

If the user closes the electronic mail, the  
20 advertisements still proceed to play.

Operation is substantially similar to the operation of the Internet advertising system disclosed in the applicants earlier application PCT/AU99/00350, the contents of which are incorporated herein by reference and  
25 the specification of which is appended hereto as "Appendix B".

In the preferred embodiment, the user computers 2 support HTML e-mail and the system automatically triggers push-content on opening of the e-mail (Netscape™ and  
30 Outlook Express™ both support HTML e-mail).

The system can check the browser that the visitor is using, including plug-ins, and can vary the push-content accordingly.

Referring to figure 2, steps in accordance with an  
35 embodiment of the invention will now be described.

In step 1, the user who has received an electronic mail in accordance with an embodiment of this invention



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opens the electronic mail. The tag in the electronic mail causes the user's browser to open and the core source and play list is loaded from the server 3 (step 2). The play list may include content or may include URL for fetching  
5 further content.

A window is opened in the background during execution of the play list (step 3) and the advertisement (the push-content in this case) is loaded into the background window. In step 5, the window is brought to the  
10 foreground and the advertisement is played (step 6). The window is then closed and moved to the background (step 7).

The play list may include information for a single advertisement to be played only. In other embodiments,  
15 however, sequences of advertisements may be played.

The content can be any type of content, including video.

In one embodiment, different content can be played each time electronic mail is opened (reference letter  
20 'A'). Different play lists may be loaded each time the electronic mail is opened.

In an alternative embodiment, as long as electronic mail is opened, sequential advertisements may be played (reference letter 'B'). The play list governs the  
25 sequence of adverts.

The following is an example of a playlist:

```
<!-- begin config -->
NBClient = "001-000001"; // Client Identifier
30 NBSite = "002"; // email identifier
NBArea = "001"; // email sub identifier
NBArgs = ""; // data to carry over to destination site
<!-- end Config -->
<!-- Begin Playlist -->
35 NBckExp = 2678400000;
chance = 1;
```

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```

curNB = 0;
NBLoopTo = 0;
NBplName = "Campaign02"; // cookie name
NBURL[0] = "http://nb.netbreak.com.au/001/00/00/00/78/1P0.html";
5 NBWait[0] = 0;
  NBSize[0] = "width=321,height=250";
  NBURL[1] = "http://nb.netbreak.com.au/001/00/00/00/47/1P0.html";
  NBWait[1] = 1200;
  NBSize[1] = "width=342,height=280";
10 <!-- End Playlist -->
   startNB();

```

The following is example code for a tag to be included in an electronic mail;

```

<SCRIPT SRC="http://code.netbreak.com.au/mail.js"
15 LANGUAGE="JavaScript"></SCRIPT>
<SCRIPT
  SRC="http://playlist.netbreak.com.au/001/00/00/01/995/001/play.js"
  LANGUAGE
  ="JAVASCRIPT"></SCRIPT>

```

20 With the first line bringing in the code 'library' and the second bringing in the playlist specific to that e-mail.

The '001/00/00/01/995/001' in the second line is the identifier for that Electronic mail.

25 Note that the tags may be inserted by a server generating the electronic mails, and this may be different from the server providing the push content.

In another aspect of the invention, push-content may be provided with standard text emails (that do not support any split-end language). In this aspect, however, a link  
 30 is placed into the electronic mail that takes the user to an Internet page which runs push-content in accordance with Patent Application PCT/AU99/00350.

The system and method of the present invention has

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application in a number of areas.

Electronic mails may be sent out on a mailing list. For example, electronic mails from a user's car dealer to inform them that a service is required on their car, may  
5 result in an associated ad for a vehicle playing.

In another application, electronic mails start a competition the user may wish to enter. One of the rules of the competition would be that the user goes back and re-opens the e-mail every week (or any other predetermined  
10 time period) to play the content for that week which will be opened and played in accordance with the present invention.

In the above description of the preferred embodiment, the content delivered is advertising material. It may be  
15 any other type of content, for example information on a desired topic.

By "electronic mail" is meant any messages delivered to a computing system to be opened by a user, and includes "electronic mail" that is delivered by an optical delivery  
20 system as well as an electrical delivery system.

Appendix A is an example of a code library for codes for enabling an embodiment of the present invention.

It will be appreciated by persons skilled in the art that numerous variations and/or modifications may be made  
25 to the invention as shown in the specific embodiments without departing from the spirit or scope of the invention as broadly described. The present embodiments are, therefore, to be considered in all respects as illustrative and not restrictive.

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## THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A method of providing push-content to a user via electronic mail comprising the step of (a) automatically  
5 displaying a pop-up window displaying push-content material, the pop-up window being provided at predetermined time after a user has begun viewing an electronic mail.
2. A method in accordance with claim 1, comprising the  
10 further step of a pop-up window disappearing after a second predetermined time interval.
3. A method in accordance with claim 2, comprising the further step of iterating the step (a) after a third predetermined interval.
- 15 4. A method in accordance with claim 1 or claim 2, comprising the step of iterating step (a) after a user has re-opened an electronic mail that has previously been closed.
5. A method in accordance with claim 3 or claim 4,  
20 comprising the further step of varying the push-content material on each iteration.
6. A system for providing push-content to a user via electronic mail, the system including a server computing system arranged to detect opening of an electronic mail  
25 and in response thereto to provide push-content material to a user computer to be displayed within a pop-up window arranged to appear at a predetermined time after the user has begun viewing the electronic mail.
7. An electronic mail which includes a control element  
30 which is arranged to trigger the steps of the method of any one of claims 1 to 5.

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8. A method of providing push-content to a user computer comprising the steps of transmitting an electronic mail in accordance with claim 7 to a user computer.

# APPENDIX A CODE LIBRARY

```

var NBVers = 2.84; // NetBreak (R) E-Mail System V2.84 (C)Creative Edge Internet Services
var NBPlayVers = 0; // Playlist Version
var alertID = null;
var curNB = 0; // Patent Pending in various territories
var NBCook;
var delCook;
var NBdelSuf = "_Delay";
var NBseqSuf = "_Next";
var delCK = NBdelSuf;
var seqCK = NBseqSuf;
var NBplName;
var NBDelay;
var NBckExp;
var expire;
var curTime;
var expDelay;
var NBDelay = 0;
var NBLoopTo;
var ckDomain;
var NBSearch;
var chance;
var NBSync = "";
var NBClient = "001-000001";
var NBSite = "999";
var NBArea = "001";
var NBArgs = "";
var CacheMiss;
var NBSearchChar = "?"; // Search Argument Separator
var NBPage = new Array(1); // Keywords for URLs of pages
var NBPArea = new Array(1); // Area Codes for URLs of pages
var NBURL = new Array(1); // URLs of NBs
var NBWait = new Array(1); // Time before
var NBSize = new Array(1); // Window size
function NBGetCkVal (offset) {
    var endstr = document.cookie.indexOf(";", offset);
    if (endstr == -1)
        endstr = document.cookie.length;
    return unescape(document.cookie.substring(offset, endstr+1));
}
function NBFixCkDate (date) {
    if(navigator.appVersion.indexOf("2.") != -1) {
        var base = new Date(0);
        var skew = base.getTime();
        if (skew != 0)
            date.setTime (date.getTime() - skew);
    }
}
function NBGetDtStr (date) {
    var dateS;
    var dateTemp = new Date(date.getTime());
    dateS = NBdateStr(dateTemp);
    if (Math.abs(Date.parse(dateS) - date.getTime()) > 1000) {
        dateTemp.setTime( date.getTime() + (date - Date.parse(dateS)));
        dateS = dateStr(dateTemp);
    }
    return dateS;
}

```

## APPENDIX B

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## INTERNET ADVERTISING SYSTEM

Field of the Invention

The present invention relates to the utilization and delivery of content when utilizing a user interface on a computer and has application to advertising over the Internet as well as other forms of content delivery.

Background of the Invention

Recently, society has seen an explosion in the utilization of the Internet and other similar computer networks for the conveying information. In particular, the "World Wide Web", has provided for the cataloguing and accessing of almost an infinite amount of information.

While web pages were originally a vehicle limited to placing text on a screen on remote computers, web pages have effectively become a receptacle for sound, pictures, animations and a form of video, amongst other forms of information.

Further, recently, the World Wide Web has experienced a high degree of commercialization. It is now common to provide for advertising over the World Wide Web. Within any advertising program, one objective is to ensure the advertising is effective in placing the message before the viewer. Hence, the placement of appropriate advertising with certain Internet sites has grown up as a separate Internet industry with the resulting revenue from advertising often driving the production of web pages. Of course, with such developments as the convergence of the Internet with interactive television and the further convergence with computer operating systems, the utilization of advertising is becoming more important generally within such computer systems.

Despite innovations in Internet-related technology, there is often a significant delay between content being requested by a user from a provider and that requested information being displayed on the computer screen which can result in such requests being cancelled by users before the content can be displayed. One consequence of this for advertising is that many users fail to view the intended advertisements. The delay is often due to the bandwidth limitations of delivery. In practice, users are very sensitive to waiting for extended periods for content delivery.

Another shortcoming with existing form of Internet-based advertising is that, due to limitations of existing browsers and code in use, there is no way for the advertiser to determine if the user had closed the window containing the advertisement before the advertisement could complete its presentation.

Summary of the Invention

It is an object of the present invention to provide for improved content delivery capabilities with interactive computer systems and to enable the measurement of completion of that content being displayed on a user's computer screen.

In accordance with a first aspect of the present invention, there is provided in a computer user interface environment for the display of information, a method of providing push content to a user comprising the step of: (a) automatically displaying a pop-up window displaying the push content material, the pop-up window being provided a predetermined time after a user has begun viewing

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first predetermined information.

5 The push content can be separately loaded over a network whilst the user can be viewing the first predetermined information. Preferably, the popup window disappears after a second predetermined interval. The method can further include the step of iterating step (a) after a third predetermined time interval.

The user interface can comprise an Internet browser and the information can be stored at an Internet site. Preferably, the method continues with the step (a) whilst a user visits pages within the Internet site.

10 The push content can be specific to the browser utilized by the user. The method can be implement through the utilization of a scripting language of the browser. The predetermined information can be varied in accordance with the time of access by the user.

In accordance with a further aspect of the present invention, there is provided in a computer user interface environment for the display of information, a method of providing push content delivery comprising the steps of: (a) providing a popup window having a determined content, the popup window being provided after a predetermined time a user viewing predetermined information, the pop up window further displaying second predetermined information; and (b) recording whether the popup window was closed by the user prior to completion of second interval and the display of the determined portion of content was completed. (c) closing or repositioning the popup window at the back of other windows after a third interval.

20 Preferably, the method further comprises iterating steps (a) to (c) after a fourth interval. The push content can further be varied in accordance with parameters available to the programming or scripting language used in a particular implementation of the method. The push content can be varied in accordance with a detected IP address of the user.

#### Brief Description of the Drawings

25 Notwithstanding any other forms which may fall within the scope of the present invention, preferred forms of the invention will now be described, by way of example only, with reference to the accompanying drawings in which:

Fig. 1 illustrates a basic flow chart for the steps of the preferred embodiment.

#### Description of Preferred and Other Embodiments

30 The preferred embodiment consists of a series of, or individual interactive web sites which deliver "popup" content to users visiting the World Wide Web page. These Web pages can be encoded utilizing standard HTML and Java Script encodings although it will be readily apparent to those skilled in the art that the present invention is readily applicable to many other language formats.

35 Preferably, this system delivers a predetermined portion of the content within a "popup" window which is provided for a predetermined time and then removed from the user's screen. The time is preferably set for each individual predetermined portion of the content and the software then waits for a predetermined period of time before running the next determined portion of content, even if a user switches pages within a site. If a user leaves the site completely, then the system is unable to run another



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portion of content until the visitor returns to the site. In any event, preferably the system does not run the next determined portion of content until the necessary time has passed since the last determined portion of content. The preferred embodiment can be implemented utilizing a browser scripting language such as JavaScript and preferably waits before beginning to load the determined portion of content until after the main page has finished loading. This is more reliable than loading the page and determined portion of content simultaneously, and ensures that the site itself loads without interruption. This can, of course, be configured for each page/frameset running the software.

The software checks the version of the browser the visitor is using. If the browser supports it, the determined portion of content will be loaded into a window while it is in the background and then moved to the foreground, otherwise it will be loaded in the foreground.

The user is able to switch windows or close the window containing the determined portion of content, thereby skipping that particular determined portion of content - although the next determined portion of content in the sequence will still run. If the window is not closed by the user before a given determined portion of content has been completely displayed on the user's screen, then a record of that completion can be added to a tally recorded in a predetermined file.

The runtime of each determined portion of content is determined by the determined portion of content itself - this allows for more flexibility in the design of the content to be delivered and the ability for the determined portions of content to change their length depending on circumstances.

The sequence of determined portions of content and the timing of the gaps between them can be determined by a playlist.

The playlist for the determined portions of content along with the code to run them must currently be included in each page that the determined portions of content are to run from. This either has to be auto-inserted by the server or added to the content of each page.

The only exception to this is framed sites, where the code & playlist can be run from the page declaring the frameset and will then apply to all pages in the frameset.

As an alternative, it would be possible for the code and playlist to reside in separate files that are referenced from the pages requiring them, but this part of JavaScript is not supported by some versions of Internet Explorer currently in use. This situation will change as users move to newer versions of browsers.

This method of insertion is likely to reduce site management overhead as well as reduce the effective size of the code for each page, and the JavaScript and playlist is likely to be cached separately by the user's browser as well as by the proxy service they are using.

This system is preferable to any system which opens an empty window every time a user attempts to view the top level (home page) of a site before loading the determined portion of content and remains on screen until closed by the visitor - this either results in the user closing the window before the determined portion of content has finished loading, or multiple windows are left on the screen all showing the same determined portion of content.

Turning now to Fig. 1, there is illustrated a basic example flow chart of this steps 1 of

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the preferred embodiment. Initially, when a user opens a Web Page at a site, the poor information for that Web Page is downloaded 2 in addition to a playlist of popup advertisements.

Next, HTML code is instructed to open a background window and the advertisement is loaded from its relevant HTML source 4. Upon loading, the add is brought to the foreground 5 and "played" 6. Subsequently, a time period lapses 7 and the method of the preferred embodiment iterates 8 back to the step 3.

Whilst an actual example of the relevant HTML encoding is provided in the attached appendix A, a number of general parts of this code will now be described.

To start the sequencer the following is added to the html <BODY> tag.

10 <BODY onLoad = "startNetBreak()">

#### Playlist

The playlist can be in the following format

"Playlist Start

.Array Declarations

15 itemURL [0] = "URL of first item"

itemWait [0] = seconds before first item

itemSize [0] = "width=width in pixels of first item, height = height in pixels of first ad"

itemURL [1] = "URL of item 2"

itemWait [1] = seconds before item 2

20 itemSize [1] = "width=width in pixels ad 2. height=height in pixels of item 2"

.....

itemURL [n-1] = "URL of item n"

itemWait[n-1] = seconds before item n

itemSize [n-1] = "width=width in pixels item n. height=height in pixels and item n"

25 " Playlist End

Here is a sample playlist for determined portions of content.

//Playlist Start

var itemURL = new Array (2)

30 var itemWait = new Array (2)

var itemSize = new Array (2)

itemURL [0] = http://netbreak.com.au/Popups/EdgeLogoSeq.html"

itemWait [0] =60

itemSize [0] = "width=620, height=420"

35 itemURL [1] = "http:// netbreak.com.au/Popups/PromoTester.html"

itemWait [1] = 60

itemSize [1] = "width=200, height=150"

" Playlist End

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There are a number of different methods of implementing this system on a web site. The implementation can be dependent on the way the web site is being served and the capabilities of the web server in use.

1. Live database generated web pages

5 The database system generating the pages would insert the JavaScript and Playlist into the required pages as the pages are generated.

This would only require modification one file when the playlist is changed and the page content would then be updated for all new pages generated.

2. Scriptable web server

10 The web server could automatically insert the JavaScript and Playlist into the required pages as it is serving the pages.

This option would also require only one change when the playlist is changed.

3. Straight web serving - no server programming

15 The JavaScript and Playlist block can be inserted into the pages by editing the HTML file for each page.

This would require each page to be edited when the playlist is changed.

The system is preferably capable of running any content that can be handled by the browser, as it can display the determined content by loading a URL into the popup window. The content can be responsible for bringing itself to the front when loaded.

20 The window is closed when the content signals to the originating window that it has finished. Therefore for the window to go away automatically requires the insertion of a small JavaScript to send this message and also requires a call to tell this script when to do so.

As a result of this, although any URL can be used it may be necessary to add JavaScript to each determined portion of content so that it presents correctly.

25 A variety of further refinements can be implemented in certain configurations. These include firstly that the JavaScript code, when used, can be created to selectively load contents based on the capabilities of the user's browser and plug-ins, enabling the use of plug-in dependent content where possible and at the same time ensuring content delivery by delivering an alternate version where necessary. An example of such a Browser capability change is given in the Appendix Example.

30 In a second refinement the selective content ability can also be used to target content specifically for the user, as long as the necessary information is available to the browser. This feature can tie in with information based on what pages the user has visited or on forms data collected by adding JavaScript to the pages collecting the data. This could also be used to advertise browsers or plug-ins for example, depending on what the user already has -informing the user of an update, for example.

35 In a third refinement, the time interval for the display of the predetermined portion of content can be determined by rules encoded into the content being displayed. These rules can be dependent upon such parameters as mouse clicks, keyboard events, the type of browser user by the user, the hardware used by the user and any other parameters available to the programming or scripting

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language used in a particular implementation of this system.

In a fourth refinement, if another window (or windows) is (or are) brought in front of the popup window displaying the determined portion of content, the popup window will automatically return to the frontmost position after a predetermined portion of time. This can be implemented as part of  
5 playing an advertisement or as part of the playlist loop.

In a fifth refinement, where a further portion of content is to be delivered for display in a popup window that has completed the display of a determined portion of content, the popup window will automatically return to the rearmost position until the new portion of content is ready to be displayed in the popup window, after which the popup window will automatically return to the frontmost position  
10 and display the new portion of content.

In a sixth refinement, the popup window can be made to 'popup' on screen in the frontmost position at predetermined times of day and/or on predetermined dates.

In a seventh refinement, the predetermined portion of content can be determined by rules encoded into software residing on the file server management hardware providing the site  
15 implementing the system described in this document. These rules can be dependent upon such parameters as the type of browser user by the user, the hardware used by the user, the IP address of the device requesting the file.

In an eighth refinement, software residing on the file server management hardware providing the site implementing the system described in this document can determine the content  
20 according to the bandwidth available to the user, derived from information in the IP address or domain of the device requesting the file. This can be used to deliver larger file sizes or different media types to high-bandwidth connections.

In a ninth refinement, software residing on the file server management hardware providing the site implementing the system described in this document can determine the content  
25 according to the location of the user, derived from information in the IP address or domain of the device requesting the file. This can be used to deliver localized information such as local weather or specific-language information, for example.

In a tenth refinement, software residing on the file server management hardware providing the site implementing the system described in this document can determine the content  
30 according to the user's domain-specific information, derived from information in the IP address or domain of the device requesting the file. This can be used to deliver domain-specific information such as educational information to educational sites (.edu) which uses information from the top level of the domain information, or advertising targeting users of a particular Internet service provider (.domain.com), which would use secondary as well as top level domain information, for example.

35 In an eleventh refinement, the popup window and the predetermined content can be subject to combinations of the abovementioned refinements.

Ideally the content used in the popup window should be kept to as few files as possible and should be able to load in about 30 seconds. At present standard modem bandwidth limits, this would

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probably mean a file size of about 150Kb with modem computer modems (56K) at most unless there is a good chance that a user will be on a page for more than long enough for the page to load.

Ideally the content to be displayed in the popup window should be small enough to fit a 640x480 pixel screen with menu bar, window frame, title bar and the extra space that the browser leaves from the left edge of the window. It is therefore suggested that the maximum size is 600(horizontal)x400(vertical) pixels to ensure good screen fit.

It is also desirable to use a standard size for all portions of content across a site - if not across all sites to ensure visitor comfort and reduce time taken for visitors to adjust to the appearance of the window. 540(horizontal)x405(vertical) pixels would provide a sufficient screen area for the advertisement while sitting comfortably within a 640(horizontal)x480(vertical) screen.

Of course, many modifications are possible. For example, the type of content used may be varied in accordance with the current time zone of the user. For example, different night time and day time content might be provided.

It would be appreciated by a person skilled in Internet-related technologies that numerous variations and/or modifications may be made to the present invention as shown in the specific embodiments without departing from the spirit or scope of the invention as broadly described. The present embodiments are, therefore, to be considered in all respects to be illustrative and not restrictive.

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Appendix A - Example HTML code

```

<HTML>
<HEAD>
</HEAD>
5  <BODY onLoad="startNB()">

    <H1>Code for Anzwers Ads</H1>

    <H1>Release version.</H1>
10  <P>
    Playlist is:<P>
    <P>
    Anzwers01 - 20 Hours Delay<P>
    Anzwers02 - 40 Hours Delay<P>
15  Anzwers01 - 20 Hours Delay<P>
    Anzwers02 - 60 Hours Delay<P>
    Anzwers01 - 60 Hours Delay  <--- Loop back to here<P>
    Anzwers02 - 60 Hours Delay<P>
    <P>
20

    <!-- begin NetBreak -->
    <!-- ASX Release 1 -->
    <SCRIPT LANGUAGE = "JavaScript">
25  <!-- begin script
    var alertID = null; // NetBreak(TM) System V1.1 (C)Creative Edge Internet Services
    var curNB = 0; // Patent Pending in various territories
    var NBCook;
    var delCook;
30  var delCK = "_Delay";
    var seqCK = "_Next";
    var NBplName;
    var NBDelay;
    var NBckExp;
35  var expire;
    var curTime;
    var expDelay;
    var NBDelay = 0;

```

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```

var NBLoopTo;
var ckDomain;
var NBPage = new Array(1); // Keywords for URLs of pages
var NBURL = new Array(1); // URLs of NBs
5 var NBWait = new Array(1); // Time before
var NBSize = new Array(1); // Window size
function getCookieVal (offset) {
var endstr = document.cookie.indexOf(";", offset);
if (endstr == -1)
10 endstr = document.cookie.length;
return unescape(document.cookie.substring(offset, endstr+1));
}
function FixCookieDate (date) {
if(navigator.appVersion.indexOf("2.") != -1) {
15 var base = new Date(0);
var skew = base.getTime();
if (skew != 0)
date.setTime (date.getTime() - skew);
}
20 }
function GetDateStr (date) {
var dateS = date.toString();
if(dateS.indexOf("(") != -1) {
dateS = dateS.substring(0, dateS.indexOf("(")) + dateS.substring(dateS.indexOf("(") + 1,
25 dateS.length);
}
return dateS;
}
function GetCookie (name) {
30 var arg = name + "=";
var alen = arg.length;
var clen = document.cookie.length;
var i = 0;
while (i < clen) {
35 var j = i + alen;
if (document.cookie.substring(i, j) == arg)
return getCookieVal (j);
i = document.cookie.indexOf(" ", i) + 1;

```

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```

    if (i == 0)
        break;
    }
    return null;
5 }

function SetCookie (name,value,expires,path,domain,secure) {
    if(expires) {
        expires.setTime(expires.getTime() + (3600000));
    }
10 document.cookie = name + "=" + escape (value) +
    ((expires) ? "; expires=" + expires.toGMTString() : "") +
    ((path) ? "; path=" + path : "") +
    ((domain) ? "; domain=" + domain : "") +
    ((secure) ? "; secure" : "");
15 }

function NBCheckURL () {
    var i = 0;
    if(navigator.appVersion.indexOf("2.") == -1) {
        while (i < NBPage.length) {
20     if (location.href.toLowerCase().indexOf(NBPage[i].toLowerCase()) != -1) {
            return 1;
            break;
        }
        i = i + 1;
25 }
    }
    return null;
}

function startNB() {
30     if(NBCheckURL()) {
        delCK = NBplName+"_Delay";
        seqCK = NBplName+"_Next";
        expire = new Date();
        curTime = new Date();
35     expDelay = expire.getTime() + (NBckExp);
        expire.setTime(expDelay);
        NBCook = GetCookie (seqCK);
        if(NBCook) {

```

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```

    curNB = parseInt(NBCook);
}
if(curNB >= NBURL.length) {
    curNB = NBLoopTo;
5   SetCookie (seqCK,curNB,expire,"/",ckDomain);
}
delCook = GetCookie (delCK);
if(delCook) {
    curTime = new Date();
10   NBDelay = Date.parse(delCook) - curTime.getTime();
}
if((NBDelay) <= 200)
    NBDelay = 200;
if (NBDelay < 100000)
15   alertID=setTimeout("displayNB()", NBDelay);
}
}
function delayNB() {
    NBDelay = NBWait[curNB]*1000;
20   var nextTime = new Date();
    var NBTime = nextTime.getTime() + (NBDelay);
    nextTime.setTime(NBTime);
    SetCookie (delCK,getDateStr(nextTime),nextTime,"/",ckDomain);
    if (NBDelay < 100000)
25   alertID=setTimeout("displayNB()", NBDelay);
}
function displayNB() {
    SetCookie (seqCK,curNB+1,expire,"/",ckDomain);
    delayNB();
30   NBWin=window.open(NBURL[curNB]+"?"+"h="+location.hostname+"p="+location.pathname,"
    NB"+curNB,NBSize[curNB]+",toolbar=0,location=0,directories=0,status=0,menubar=0,scrollbars
    =0,resizable=0");
    if(NBWin == null) {
        NBWin=window.open(NBURL[curNB]+"?"+"h="+location.hostname+"p="+location.pathname,"
35   NB"+curNB,NBSize[curNB]+",toolbar=0,location=0,directories=0,status=0,menubar=0,scrollbars
        =0,resizable=0");
    }
    if(parseInt(navigator.appVersion) > 3) {

```

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```

        focus(),
    }
    curNB += 1;
    if(curNB >= NBURL.length)
5      curNB = NBLoopTo;
    }
    <!-- begin Config -->
    NBckExp = 2678400000; // sequence cookie expire time
    NBLoopTo = 4; // Point in playlist to loop back to
10   curNB = 0; // First NB to run if no cookie
    ckDomain = null; // Domain for timing & sequencing cookies
    <!-- end Config -->
    <!-- begin PageKey -->
    NBPage[0] = ""
15   <!-- end PageKey -->
    <!-- begin PlayList -->
    NBpName = "ASX01"; // cookie name for playlist
    NBURL[0] = "http://nb1.netbreak.com.au/ASX/Anzwers01.html";
    NBWait[0] = 72000; // 20 Hours
20   NBSize[0] = "width=245,height=170";
    NBURL[1] = "http://nb1.netbreak.com.au/ASX/Anzwers02.html";
    NBWait[1] = 144000; // 40 Hours
    NBSize[1] = "width=245,height=170";
    NBURL[2] = "http://nb1.netbreak.com.au/ASX/Anzwers01.html";
25   NBWait[2] = 72000; // 20 Hours
    NBSize[2] = "width=245,height=170";
    NBURL[3] = "http://nb1.netbreak.com.au/ASX/Anzwers02.html";
    NBWait[3] = 216000; // 60 Hours
    NBSize[3] = "width=245,height=170";
30   NBURL[4] = "http://nb1.netbreak.com.au/ASX/Anzwers01.html";
    NBWait[4] = 216000; // 60 Hours
    NBSize[4] = "width=245,height=170";
    NBURL[5] = "http://nb1.netbreak.com.au/ASX/Anzwers02.html";
    NBWait[5] = 216000; // 60 Hours
35   NBSize[5] = "width=245,height=170";
    <!-- end PlayList -->
    // end script -->
</SCRIPT>

```

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```

<!-- end NetBreak -->

</BODY>
5 </HTML>
_____

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2//EN">
<HTML>
10 <HEAD>
<META HTTP-EQUIV="expires" CONTENT="1">
<META HTTP-EQUIV="Pragma" CONTENT="no-cache">
<META HTTP-EQUIV="refresh" CONTENT="240;URL=Anzwers01t.html">
<TITLE>Loading...</TITLE>
15 </HEAD>
<BODY BGCOLOR="#FFFFFF" onLoad="NBEnd()">
<CENTER>
<SCRIPT LANGUAGE="JavaScript">

20 <!-- hiding
var fType = "gif"; // NetBreak(TM) (C) Creative Edge Internet Services - Patent Pending
var bType = "d";
var running = 0;
var alertID = null;

25
if (navigator.userAgent && navigator.userAgent.indexOf("MSIE")>=0) {
    if(parseInt(navigator.appVersion) > 3) {
        blur();
        bType = "";
30    }
    } else if (parseInt(navigator.appVersion) > 2) {
        blur();
        bType = "";
    }
    }

35 var NBNext = "Anzwers01"+fType+bType+".html";
var ShockMode = 0; // Using Portions of AfterShock © Macromedia
if (navigator.mimeTypes && navigator.plugins["Shockwave Flash"] &&
    navigator.mimeTypes["application/x-shockwave-flash"].enabledPlugin) {

```

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```

    fType = "swf";
  } else if (navigator.userAgent && navigator.userAgent.indexOf("MSIE")>=0) {
    if ((navigator.userAgent.indexOf("Windows 98")>=0 || navigator.userAgent.indexOf("Windows
95")>=0 || navigator.userAgent.indexOf("Windows NT")>=0)) {
5    document.write('<SCRIPT LANGUAGE=VBScript> \n');
    document.write('on error resume next \n');
    document.write('ShockMode =
(IsObject(CreateObject("ShockwaveFlash.ShockwaveFlash.3")))\n');
    document.write('</SCRI'+PT> \n');
10  }
    if ( ShockMode ) {
      fType = "swf";
    }
  }
15
  NBNext = "Anzwers01"+fType+bType+".html";
  if(bType == "d") {
    NBEnd();
  }
20  if(fType == "gif") {
    document.write('<IMG SRC="http://www.zipworld.com.au/~cedi/popups/Anzwers01d.gif"
WIDTH=230 HEIGHT=150 ALT="Loading..." Border=0>');
    if(fType == "swf") {
      document.write('<EMBED SRC="http://www.zipworld.com.au/~cedi/popups/Anzwers01.swf"
25  WIDTH=230 HEIGHT=150 PLAY="false" LOOP="false" QUALITY="high"
SWLIVECONNECT="false"></EMBED>');
    }
    function NBEnd() {
      window.location.href = NBNext+window.location.search;
30  }
    function NBClick() {
      running = 0;
      NBNext = "Anzwers01dr.html";
      NBEnd();
35  }

  // STOP -->

```

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```
</SCRIPT>
</CENTER>
</BODY>
5  </HTML>

-----

10  <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2//EN">
    <HTML>
    <HEAD>
    <META HTTP-EQUIV="expires" CONTENT="1">
    <META HTTP-EQUIV="Pragma" CONTENT="no-cache">
15  <TITLE>Anzwers</TITLE>
    </HEAD>
    <BODY BGCOLOR="#FFFFFF" onLoad="doRun()">
    <CENTER>
    <EMBED SRC="http://www.zipworld.com.au/~cedi/popups/Anzwers01.swf" WIDTH=230
20  HEIGHT=150 PLAY="true" LOOP="false" QUALITY="high"
    SWLIVECONNECT="false"></EMBED>
    </CENTER>
    </BODY>
    <SCRIPT LANGUAGE="JavaScript">
25
    <!-- hiding
    var alertID = null; // NetBreak(TM) (C) Creative Edge Internet Services - Patent Pending
    var delayID = null;
    var running = 1;
30  var runCK = "NB_Running";
    var ckDomain = null;

35  var NBNext = 'Anzwers01swfe.html';
    function doRun() {
        keepFront();
        alertID=setTimeout("NBEnd()", 35 * 1000);
```

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```

    }
    function keepFront() {
        if(running == 1) {
            focus();
5        }
        if(1 > 0) {
            delayID=setTimeout("keepFront()", 1 * 1000);
        }
    }
10
    function NBEnd() {
        running = 0;
        blur();
        // SetCookie (runCK,"",null,"/",ckDomain);
15    window.location.href = NBNext+window.location.search;
    }
    function NBClick() {
        running = 0;
        NBNext = "Anzwers01swfr.html";
20    NBEnd();
    }

    // STOP -->
25
    </SCRIPT>
    </HTML>



---


30
    <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2//EN">
    <HTML>
    <HEAD>
    <META HTTP-EQUIV="expires" CONTENT="1">
35    <META HTTP-EQUIV="Pragma" CONTENT="no-cache">
    <META HTTP-EQUIV="refresh" CONTENT="10;URL=Anzwers01swff.html">
    <TITLE>Anzwers</TITLE>
    <BODY BGCOLOR="#FFFFFF" onLoad="doRun()">

```

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```

&nbsp;
</BODY>
<SCRIPT LANGUAGE="JavaScript">

5  <!-- hiding
    function doRun() {
        window.close();
        // NetBreak(TM) (C) Creative Edge Internet Services - Patent Pending
    }
10 // STOP -->

    </SCRIPT>
    </HTML>

15 _____

    <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2//EN">
    <HTML>
    <HEAD>
20  <META HTTP-EQUIV="expires" CONTENT="1">
    <META HTTP-EQUIV="Pragma" CONTENT="no-cache">
    <META HTTP-EQUIV="refresh" CONTENT="2;URL=Answers01swff.html">
    <TITLE>Answers</TITLE>
    </HEAD>
25  <BODY BGCOLOR="#FFFFFF" onLoad="doRun()">
    <P>Loading...
    </BODY>
    <SCRIPT LANGUAGE="JavaScript">

30  <!-- hiding
    function doRun() {
        var
        adWin=window.open("http://www.answers.com.au","NetBreakReferer","width=620,height=370,t
        oolbar=1,location=1,status=1,menubar=1,scrollbars=1,resizable=1");
35  if(adWin == null) {

        adWin=window.open("http://www.answers.com.au","NetBreakReferer","width=620,height=370,t
        oolbar=1,location=1,status=1,menubar=1,scrollbars=1,resizable=1");

```

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```
}  
window.location.href = 'Anzwers01swfe.html';  
}  
// STOP -->
```

5

```
</SCRIPT>  
</HTML>
```

10

---



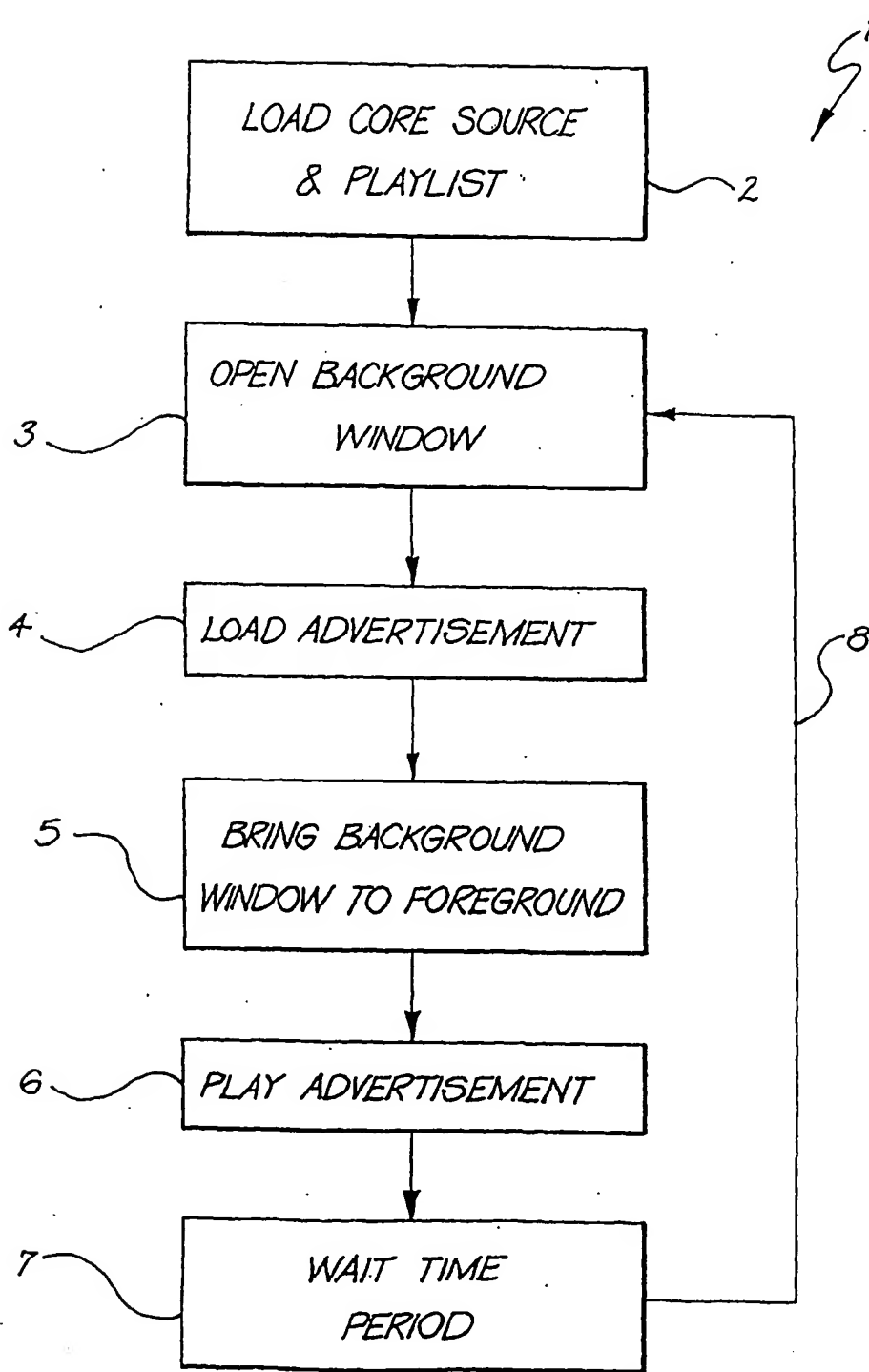


FIG. 1

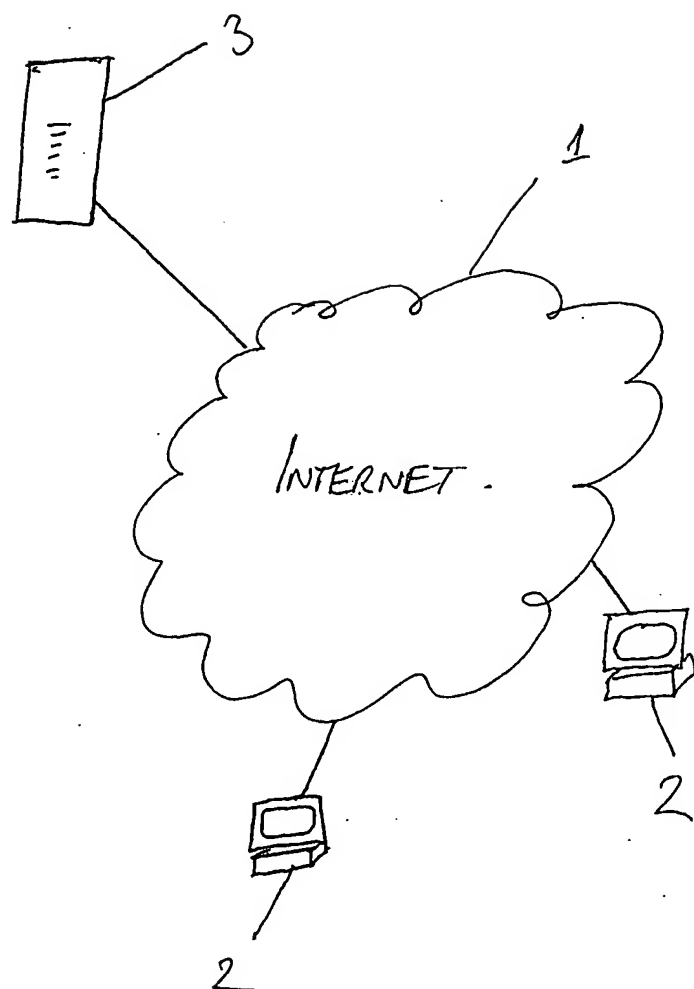
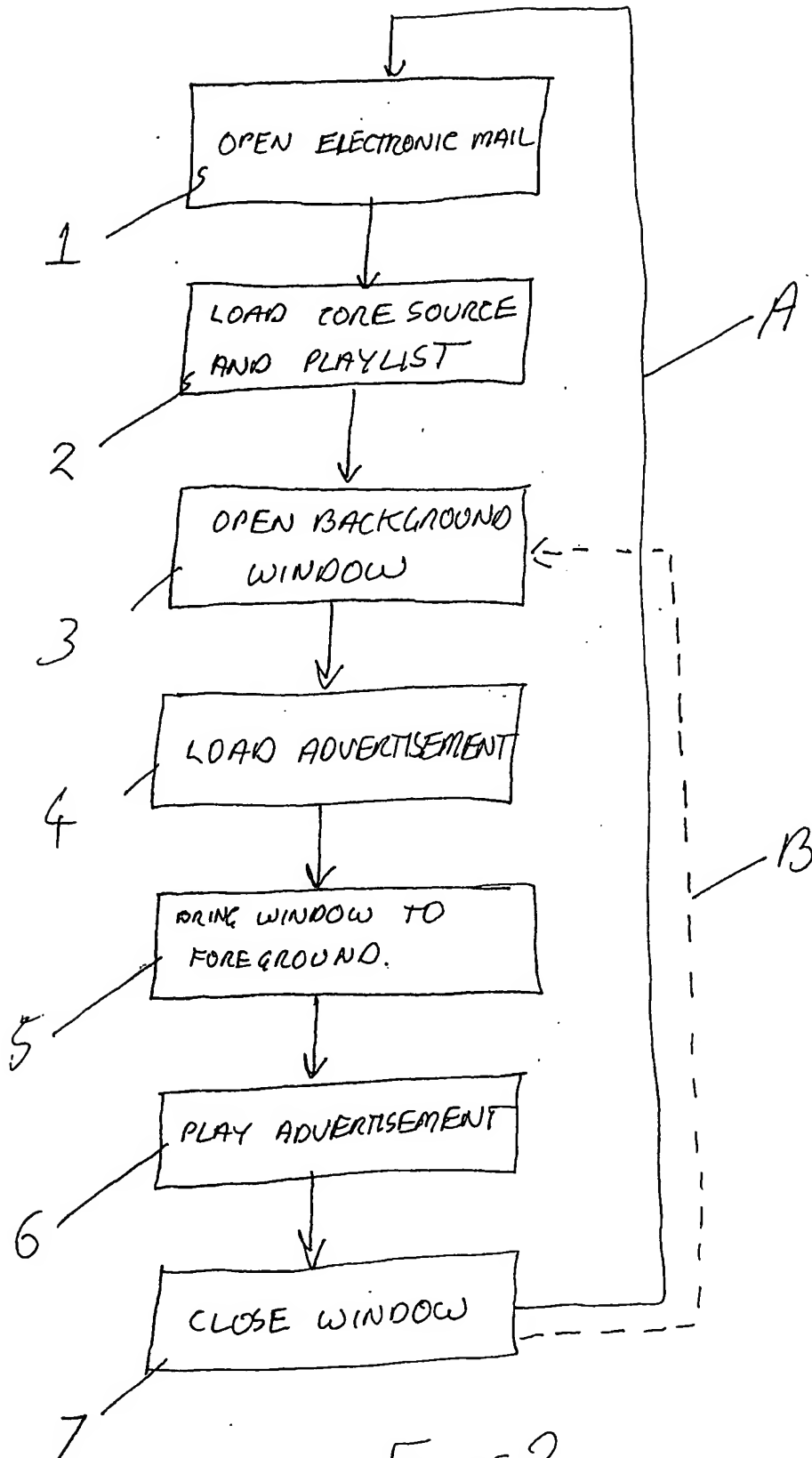


FIGURE 1.

FIGURE 2

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU01/01202

<b>A. CLASSIFICATION OF SUBJECT MATTER</b>		
Int. Cl. <sup>7</sup> : G06F 17/60		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols) IPC: G06F		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) USPTO, DWPI (email, advertising)		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99/59097 A (CREATIVE EDGE INTERNET SERVICES PTY. LTD.), 18 <sup>th</sup> November 1999 the whole document	1-8
X	US 6065048 A (HIGLEY) 16 <sup>th</sup> May 2000 figures 6, 7; column 7, line 48 – column 8, line 25	1, 7-8
A, P	WO 01/27715 A (MINDARROW SYSTEMS, INC) 19 <sup>th</sup> April 2001 the whole document	1-8
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 8 November 2001		Date of mailing of the international search report 19 NOV 2001
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929		Authorized officer M.J. O'ROURKE Telephone No : (02) 6283 2017

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU01/01202

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 96/24213 A (FREEMARK COMMUNICATIONS, INC) 8 <sup>th</sup> August 1996 the whole document	1-8
X, P	WO 01/42944 A (KANG) 14 <sup>th</sup> June 2001 the whole document	1-2, 4, 6-8

INTERNATIONAL SEARCH REPORT  
Information on patent family members

International application No.  
PCT/AU01/01202

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member	
WO 9959097	AU 36929/99	EP 1084478	
US 6065048	CA 2250853	US 5790793	WO 9631826
WO 200127715	AU 64285/99		
WO 9624213	AU 49020/96		
WO 200142944	AU 200119013		
END OF ANNEX			